RESPONSE UNDER 37 C.F.R. 1.116 - EXPEDITED PROCEDURE

Serial Number: 09/476219 Filing Date: December 30, 1999

Title: NON-LINEAR ADAPTIVE VOLTAGE POSITIONING FOR DC-DC CONVERTERS

Assignee: Intel Corporation

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## IN THE CLAIMS

The pending claims are provided herein for the Examiner's convenience.

1. (Previously Presented) A method of providing a voltage from a DC-DC converter such that the voltage provided varies dependent on the current drawn from the DC-DC converter, comprising:

sensing a current drawn from the DC-DC converter; and

adjusting the voltage provided from the DC-DC converter such that the voltage is at a maximum current voltage level when the current drawn is at a maximum load current level and the voltage is at a minimum current voltage level when the current drawn is at a minimum but nonzero load current level.

- 2. (Original) The method of claim 1, further comprising adjusting the voltage provided from the DC-DC converter to provide a substantially linear voltage response with respect to current drawn between the maximum load current level and the minimum load current level.
- 3. (Original) The method of claim 1, further comprising adjusting the voltage provided from the DC-DC converter such that the voltage is at the minimum current voltage level when the current drawn is below the minimum load current level.
- 4. (Original) The method of claim 1, wherein the minimum load current level is the minimum current drawn by a known load device having a minimum current draw of greater than no current.
- 5. (Original) The method of claim 1, wherein the minimum load current level is a selected current level between but not including no current and the maximum load current level.

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6. (Original) The method of claim 1, wherein sensing a current drawn from the DC-DC converter comprises sensing the voltage across a current sensing resistor connected in series with an output of the DC-DC converter.

7. (Previously Presented) A method of providing a voltage from a DC-DC converter such that the voltage provided varies dependent on the current drawn from the DC-DC converter, comprising:

sensing an output current drawn from the DC-DC converter;

converting the sensed output current to a voltage signal indicating the sensed output current;

adjusting the voltage signal indicating the sensed output current such that the voltage is at a minimum level when the current drawn is at a maximum load current level and the voltage is at a maximum level when the current drawn is at a minimum but nonzero load current level; and adding the adjusted voltage signal to the voltage provided by the DC-DC converter.

8. (Previously Presented) A method of providing a voltage from a DC-DC converter such that the voltage provided varies dependent on the current drawn from the DC-DC converter, comprising:

sensing an output current drawn from the DC-DC converter;

converting the sensed output current to a voltage signal indicating the sensed output current;

adjusting the voltage signal indicating the sensed output current such that the voltage is at a maximum current voltage level when the current drawn is at a maximum load current level and the voltage is at a minimum current voltage level when the current drawn is at a minimum but nonzero load current level; and

subtracting the adjusted voltage signal from the voltage provided by the DC-DC converter.

9. (Previously Presented) A DC-DC converter, comprising:

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a module operable to sense a current drawn from the DC-DC converter and further

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operable to adjust the voltage provided from the DC-DC converter such that the voltage is at a maximum current voltage level when the current drawn is at a maximum load current level and

the voltage is at a minimum current voltage level when the current drawn is at a minimum but

nonzero load current level.

10. (Original) The DC-DC converter of claim 9, wherein adjusting the voltage in response to

the sensed current is performed via hardware.

11. (Original) The DC-DC converter of claim 9, wherein adjusting the voltage in response

to the sensed current is performed via software executing on a processor.

12. (Original) The DC-DC converter of claim 9, wherein sensing a current drawn from the

DC-DC converter comprises measuring the voltage across a current sensing resistor

connected in series with an output of the DC-DC converter.

13. (Original) The DC-DC converter of claim 9, wherein the module is further operable to

provide a substantially linear voltage response with respect to current drawn between the

maximum load current level and the minimum load current level.

14. (Original) The DC-DC converter of claim 9, wherein the module is further operable to

provide a voltage at the minimum current voltage level when the current drawn is below

the minimum load current level.

15. (Original) The DC-DC converter of claim 9, wherein the minimum load current level is

the minimum current drawn by a known load device having a minimum current draw of

greater than no current.

16. (Original) The DC-DC converter of claim 9, wherein the minimum load current level is a

selected current level between but not including no current and the maximum load current level.